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ANNUAL REPORT
OF THE
FIRE DEPARTMENT
FOR THE PERIOD

JULY 1, 1976, TO JUNE 30, 1977

BOSTON, July 1, 1977.

HON. KEVIN H. WHITE,
Mayor of Boston.

Dear Mr. Mayor:

I have the honor to submit herewith a report of the activities of the Boston Fire Department for the period July 1, 1976, to June 30, 1977.

During this period, the department implemented its minority hiring program as set down by a decree of the federal court. The percentage of minorities increased from .8 percent to 5 percent, and it is expected that greater progress will be made to attain the desired objective in the coming year.

A pilot program was initiated to evaluate the feasibility of replacing conventional fire alarm boxes with a telephone-type box in the areas of the city where the incidence of false alarms is high. The results of this program were quite startling, as we found a reduction in false alarms from 235 to 4 on the boxes studied. A major decision has been made to move forward with a program of replacing 200 fire alarm boxes in the coming year with this new type of fire alarm box.

During the past year, a new, high-speed fire boat was delivered to this department. This made it possible to change the concept of marine fire protection within the harbor, giving the flexibility necessary to cope not only with the large waterfront fire on a ship or commercial property, but also the ability to respond to and render assistance to the ever-increasing number of pleasure craft that frequent the waters of Boston Harbor.

The Boston Fire Department will continue to serve the City of Boston in the same manner which they have done throughout its great history.

Respectfully submitted,

GEORGE H. PAUL,
Fire Commissioner.

See
Letter
12-6-79

2-17-CC
6-31
8

1976-1977

Fire Commissioner, GEORGE H. PAUL

Chief of Department, GEORGE H. PAUL

Senior Administrative Assistant, JOHN F. O'NEIL

Medical Examiner, RICHARD H. WRIGHT, M.D.

Deputy Fire Chief in Charge of Training and Research Division, JOHN R. HARRISON (to March 30, 1977)

Deputy Fire Chief in Charge of Training and Research Division, GERALD P. HART (from March 30, 1977)

Deputy Fire Chief in Charge of Fire Prevention Division, JOSEPH L. DOLAN

Deputy Fire Chief in Charge of Planning and Logistics Division, JOHN J. MCCARTHY

Superintendent of Maintenance Division, JOSEPH M. ROPER

Superintendent of Fire Alarm Division, JOHN M. MURPHY

Chaplains, REV. MSGR. JAMES J. KEATING, Catholic
REV. JOHN E. BARCLAY, Protestant
RABBI IRA A. KORFF, Jewish

STATISTICS

**COMPARATIVE FIRE DEPARTMENT
EXPENDITURES**

1. PERSONAL SERVICES
Permanent employees.....
Overtime
Total Personal Services.....
2. CONTRACTUAL SERVICES
Communications
Light, heat, and power.....
Repairs and maintenance of buildings and
structures
Repairs and servicing of equipment.....
Transportation of persons.....
Miscellaneous contractual services.....
Total Contractual Services.....
3. SUPPLIES AND MATERIALS
Automotive supplies and materials.....
Heating supplies and materials.....
Household supplies and materials.....
Medical, dental, and hospital supplies and
materials
Office supplies and materials.....
Miscellaneous supplies and materials.....
Total Supplies and Materials.....
4. CURRENT CHARGES AND OBLIGATIONS
Other current charges and obligations.....
Total Current Charges and Obligations.....
5. EQUIPMENT.....
Automotive equipment.....
Office furniture and equipment.....
Miscellaneous equipment.....
Total Equipment.....
Grand Total.....

COMPARATIVE FIRE DEPARTMENT EXPENDITURES

	1975-1976	1976-1977
.....	\$36,063,842.00	\$32,992,713.95
.....	<u>1,526,252.00</u>	<u>1,893,617.02</u>
.....	\$37,590,094.00	\$34,886,330.97
.....	102,601.00	122,685.32
.....	322,884.00	321,285.80
.....	154,959.00	120,917.59
.....	276,250.00	315,631.47
.....	2,155.00	2,077.00
.....	<u>29,257.00</u>	<u>58,923.14</u>
.....	\$ 888,106.00	\$ 941,520.32
.....	355,820.00	315,640.73
.....	164,395.00	219,724.92
.....	23,584.00	28,840.86
.....	716.00	836.00
.....	25,883.00	30,784.86
.....	<u>750,858.00</u>	<u>665,441.11</u>
.....	\$ 1,321,256.00	\$ 1,261,268.48
.....	235,100.00	328,460.70
.....	<u>\$ 235,100.00</u>	<u>\$ 328,460.70</u>
.....	84,614.00	52,583.10
.....	5,089.00	6,776.88
.....	<u>595,528.00</u>	<u>322,022.83</u>
.....	\$ 685,231.00	\$ 381,382.81
.....	\$40,709,787.00	\$37,798,963.28

FIRE COMMISSIONERS

*1874-1876	Alfred P. Rockwell
1877-1879	David Chamberlain
1879-1883	John E. Fitzgerald
1883-1885	Henry W. Longley
1885-1886	John E. Fitzgerald
1886-1895	Robert G. Fitch
1895-1905	Henry S. Russell
1905	Patrick J. Kennedy (Acting February 17-March 20)
1905-1908	Benjamin W. Wells
1908-1910	Samuel D. Parker
1910	Francis M. Carroll (Acting May 27-September 16)
1910-1912	Charles C. Daly
1912-1914	Charles H. Cole
1914-1919	John Grady
1919-1921	John R. Murphy
1921-1922	Joseph P. Manning (Acting November 8, 1921-April 1, 1922)
1922	William J. Casey (Acting April 1-August 24)
1922-1925	Theodore A. Glynn
1926	Thomas F. Sullivan (Acting January 26-July 6)
1926-1930	Eugene C. Hultman
1930-1933	Edward F. McLaughlin
1933-1934	Eugene M. McSweeney (October 16, 1933-January 5, 1934)
1934-1938	Edward F. McLaughlin
1938-1945	William Arthur Reilly
1945-1946	John I. Fitzgerald (June 7, 1945-January 7, 1946)
1946-1950	Russell S. Codman, Jr.
1950-1953	Michael T. Kelleher
1953-1954	John F. Cotter
1954-1959	Francis X. Cotter
1959	Timothy J. O'Connor (March 2-December 31)

*Previous to 1874, the Boston Fire Department was in charge of the Chief Engineer.

1960–1961	Henry A. Scagnoli
1961–1966	Thomas J. Griffin
1966	Henry A. Scagnoli (Acting July 1–August 17)
1966–1968	William J. Fitzgerald
1968–1975	James H. Kelly
1975	George H. Paul

CHIEFS OF DEPARTMENT

1826–1828	Samuel D. Harris
1829–1835	Thomas C. Amory
1836–1853	William Barnicoat
1854–1855	Elisha Smith, Jr.
1856–1865	George W. Bird
1866–1874	John S. Damrell
1874–1884	William A. Green
1884–1901	Louis P. Webber
1901–1906	William T. Cheswell
1906–1914	John A. Mullin
1914	John Grady (1 day)
1914–1919	Peter F. McDonough
1919–1922	Peter E. Walsh
1922–1924	John O. Taber
1925–1930	Daniel F. Sennott
1930–1936	Henry A. Fox
1936–1946	Samuel J. Pope
1946–1948	Napeen Boutilier
1948–1950	John F. McDonough
1950–1956	John V. Stapleton
1956	Edward N. Montgomery
1956–1960	Leo C. Driscoll
1960–1963	John A. Martin
1963–1966	William A. Terrenzi
1966–1967	James J. Flanagan
1967–1969	John E. Clougherty
1969–1970	Joseph F. Kilduff
1970	George H. Paul (from April 1, 1970)

**MEDAL OF HONOR MEN
BOSTON FIRE DEPARTMENT — 1976**

"John E. Fitzgerald Medal"

Awarded to Fire Fighter JAMES P. MANNING of Engine
Company 18

"Walter Scott Medal for Valor"

Awarded to Fire Lieutenant MARTIN J. NEE of Rescue
Company 1

"Patrick J. Kennedy Medal"

Awarded to Fire Lieutenant LEO J. FAMA of Fire
Prevention Division

ROLL OF MERIT — 1976

Fire Fighter PAUL S. RANKIN of Rescue Company 1

Fire Fighter MARTIN T. GLYNN of Ladder Company 17

Fire Lieutenant JOSEPH L. PISTORINO of Engine Company
16

Fire Fighter THOMAS S. LYDON of Engine Company 2

Fire Fighter LEO J. SCANLON of Engine Company 16

Fire Fighter PAUL D. MANNING of Engine Company 16

Fire Fighter ROBERT F. MACKEY of Rescue Company 1

Fire Fighter STEPHEN T. LANGONE of Engine Com-
pany 24

"Distinguished Service Award"

Awarded to Deputy Fire Chief LEO D. STAPLETON of
Division 1

In Memoriam

Deaths of Active Members During 1976

July 11

ALBERT F. SARGENT
Fire Fighter, Engine Company 16

August 2

FRANCIS X. O'BRIEN
Fire Captain, Engine Company 1

August 27

ROBERT E. ALWARD
Fire Fighter, Aerial Tower 2

October 23

RICHARD P. SHERIDAN
Fire Fighter, Ladder Company 16

Deaths of Active Members During 1977

January 16

JOHN R. MANNING
Fire Fighter, Ladder Company 13

February 20

JOHN F. MCGRATH
Fire Lieutenant, Training and Research Division

April 2

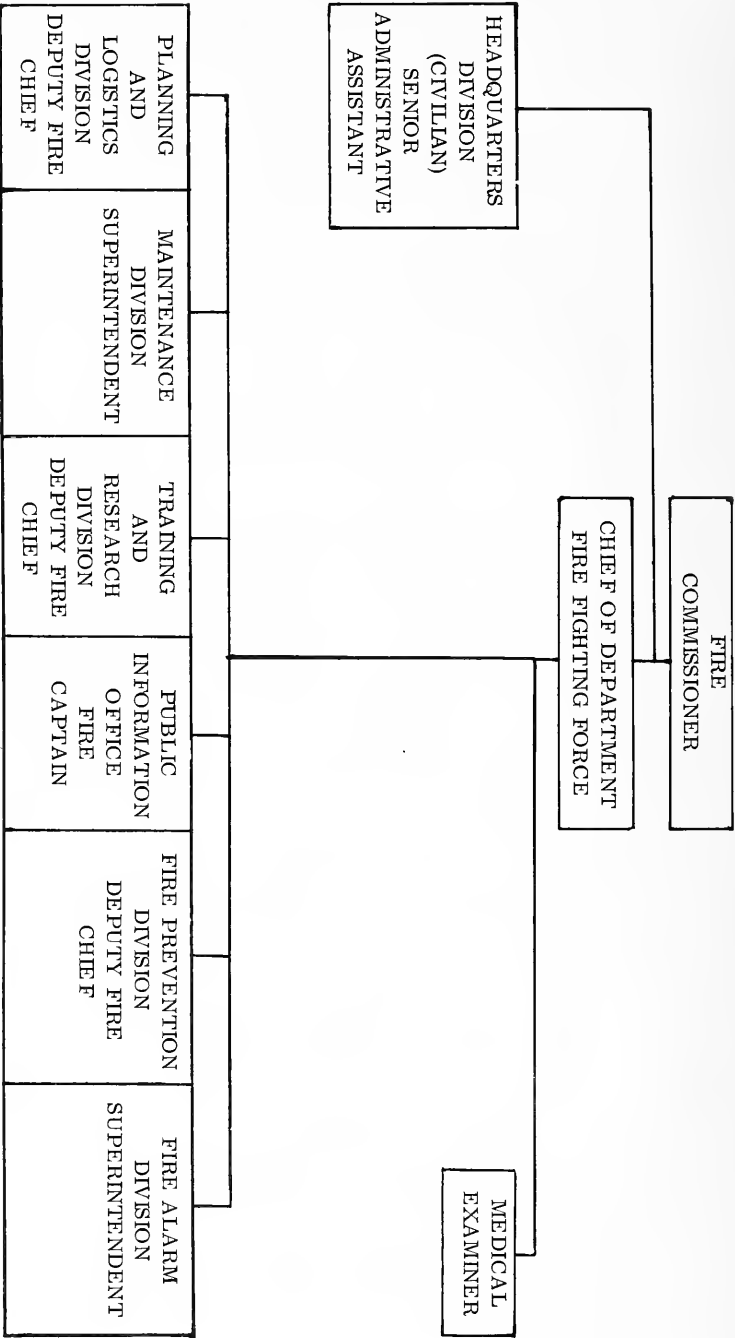
ROBERT D. MCGILVEARY
Fire Fighter, Engine Company 49

April 11

HUGH F. O'BRIEN
Fire Fighter, Ladder Company 5

April 20

WALTER R. MCGUIRE
Working Foreman Lineman, Fire Alarm Division



CIVIL DEFENSE OFFICE

The Civil Defense section of the Boston Fire Department, in addition to its normal duties, has been given the responsibility of maintaining and supervising the Emergency Medical Assistance Program.

The following is a synopsis of the training accomplishments of the Emergency Medical Assistance Program for the fiscal period 1976-1977:

To date, the department has over 450 members who have attained the level of Registered Emergency Medical Technician through an eighty-one-hour, advanced training course. In addition to this advanced course, all 1,700 fire fighters have been trained in a twenty-six-hour, in-service course. This level of training is referred to as "The First Responder Course." The basic scope of this First Responder Course consists of instructional and practical training in cardiopulmonary resuscitation and all of the associated elements of emergency care training, such as airway maintenance, breathing difficulties, control of bleeding, fractures, poisoning, drugs, burns, proper stabilization of the injured, extrication techniques, etc. Current progress in this program has resulted in the entire Fire Department's being trained and certified as First Responders, as required under General Laws, section 1 of chapter 111. At this time retraining will continue so as to maintain a hold on this valuable, emergency-care resource. This in-service First Responder Course allows also for the recertification of those Registered Emergency Medical Technicians within the fire-fighting ranks as they automatically are included in the program along with their fellow fire fighters.

The department has also completed the phasing out of its E & J resuscitators which have become outmoded and have replaced them with the new and sophisticated Rockford Para-Vent Oxygen Ventilator-Aspirator units. In addition to a much-improved, overall performance, it also is much more compatible with cardiopulmonary resuscitation efforts.

The Underwater Recovery Team is comprised of eight carefully selected men headed by a Fire Lieutenant (Dive

Master) and a Fire Lieutenant (Assistant Dive Master). The members of this team work a full schedule on their respective fire companies and are on call around the clock for response to emergency, water-related incidents through the employment of call receivers which they keep on their person at all times, and are dispatched to emergencies via the Fire Alarm Office.

This team of professional scuba divers are fully equipped and trained. In addition, they are provided with a Fire Department scuba van which was secured at no cost through the Civil Defense surplus property program. This van permits the team to effectively perform these hazardous duties during all types of weather conditions and over long periods of operation. During the year 1976, the services of the team were required on twenty-one occasions in which they saved lives, recovered bodies, and assisted the police in many investigations where submerged vehicles had to be recovered in order to effectively complete these investigations.

TRAINING AND RESEARCH DIVISION

The primary function of the Training and Research Division is twofold:

1. To initiate and supervise the job development of the fire fighter, commencing with the probationary period and continuing throughout his career.
2. To become involved in research programs designed to improve fire-fighting techniques, fire-fighting apparatus and equipment, and protection of fire fighters; to prepare specifications for new fire apparatus; to test and evaluate newly acquired fire apparatus; to test and evaluate new tools and appliances before recommending their use in the department.

The following summary covers in general the activities of this division during the past fiscal year:

Available Facilities

1. Training and Research Division Office, Headquarters Building
2. Fire-Fighting Equipment Stockroom and Repair Facility, Headquarters Building
3. Memorial Hall, Headquarters Building
4. Pump Test Pit, Maintenance Division Yard
5. John A. Martin Fire Academy, Moon Island
6. Compressed Air Tank and Fire Extinguisher Recharging Station, Moon Island
7. Compressed Air Cylinder Recharging Station (5,000 lb. capacity), Headquarters Building
8. Drill Tower, Engine 29, Brighton

Department Drilling and Training Program

This division develops, formulates, and conducts drilling and training procedures covering the wide range of subjects, both basic and newly developed, that must be taught and reviewed to insure operations at fires and other incidents requiring the response of the Fire Department. It is absolutely essential that personnel of our department be trained and continuously reviewed on the

necessary tasks facing them in the fire service. A manual of standard operating procedures, previously established, covering the various activities of this department for the guidance of personnel and for uniform operations of the department was used in our training programs. These procedures are revised as required. Forty-four engine, twenty-eight ladder, two rescue, two aerial tower, two fireboat, and two lighting plant companies (making a total of eighty fire companies) were instructed during the period covered in this report.

1. Equipment Familiarization
2. Apparatus Familiarization
3. Provisional Appointees
 - a. Drill School
 - b. Physical Fitness Standards
 - c. On-the-Job Training Program
4. Massachusetts Bay Transportation Authority
5. Exhibition Drill Team
6. Boston Gas Company
7. Fire Science Courses
8. State College Cooperative Plan

Basic Fire Fighting

This department conducted courses of instruction in the fundamentals of fire fighting and fire safety for groups in the city and within the surrounding areas. The facilities of the Fire Academy, as well as the classrooms, are used. These groups included other fire departments, insurance companies, security agencies, police departments, municipal organizations, hospitals, etc. In addition, members from the various surrounding fire departments have attended our probationers' drill school.

Liquefied Natural Gas

In March of 1977, the Energy Transportation Corporation of New York, at their expense, constructed a Liquefied Natural Gas Training Center at the Moon Island Academy grounds for training crew members of the LNG tankers being constructed at General Dynamics Shipyard in Quincy. This equipment may be used at any time by the department for training purposes.

Surveys

Annual surveys, inspections, and tests are carried out throughout the department to determine the condition of the various tools and appliances used in the fire service. It is of extreme importance that periodic tests and checks of equipment be carried out to also insure the safety of personnel who may be called upon to use this equipment.

Servicing and Repair Program

In order to properly maintain and guarantee the safe and continuous operation of fire-fighting equipment, tools, and appliances, a year-round servicing and repair program is conducted by this division at our repair facilities at Headquarters and at the Fire Academy. These facilities avoid delay and reduce the cost to the city of servicing and repairing this equipment.

Inventory — Fire Fighting Equipment

In order to carry on our servicing and repair programs and to insure the efficient operation of companies at fires, it is necessary for this division to maintain an inventory of fire-fighting tools, equipment, and parts for same. This requires extensive record-keeping and constant review.

Because of the energy crisis requirements, this division maintains records of all its issues and consumption of gasoline, oil, and diesel fuel.

Grid Maps

A program of determining response routes, classifying streets for still-alarm locations, hydrant locations, water-main size, etc. on grid maps of the city was initiated in 1976 and is continuing.

Research

A very important function of this division is to conduct tests and experiments and thoroughly evaluate the merits of new equipment, materials, and appliances developed for the fire service. We are always alert to take advantage of progress made by manufacturers when the purchase of equipment becomes necessary, and manufacturers are encouraged to submit samples of their products for test

and evaluation. These responsibilities will be increased as the requirements for occupational safety under OSHA and NIOSH are put into effect.

Following are some of the research programs conducted by this division:

1. Protective Breathing Equipment
2. Protective Clothing and Equipment
3. Work Clothes and Uniforms
4. Fire Coats
5. Fire Helmets
6. Fire Fighters' Work Gloves
7. Fire Boots
8. Miscellaneous Fire Fighting Equipment

The following new apparatus and equipment was received and placed in service during the period 1976-1977:

Ten, 100-foot Seagrave Aerial Ladder Trucks with four-door cabs.

Rescue 1 received a new Ford Rescue Van Ten, XL-98, Homelight Saws were issued to Ladder Companies. Seven, new Hurst tools, commonly called "Jaws of Life," were placed in service, making a total of nine now in use throughout the department.

Five "Mini X," foam applicators were issued to the high-expansion companies — Engines 1, 5, 20, 25, and 41.

The Training and Research Division of this department compares favorably with the outstanding setups for training throughout the country. We have every reason to believe that the Fire Department will continue to be trained and maintained at its present high caliber and that progress through teaching and training will be the forerunner of greater efficiency.

FIRE PREVENTION DIVISION*Licenses*

From July 1, 1976, through June 30, 1977, receipts from issued totaled \$99,586.50.

Permits

Permit revenue from July 1, 1976, through June 30, 1977, amounted to \$185,578.70, including miscellaneous permits. Total revenue from all sources for the past twelve months was \$285,165.20.

Plans Examiner

During the past twelve months, the Plans Examiner has examined and approved a total of 466 sets of plans. He is also required to convey by telephone, information relative to applicable codes for specific occupancies. Review of plans are made for autonomous authorities, preliminary discussions are made relative to proposed structures with regards to requirements, and appearances are made at both state and local public hearings to voice opinions of the Fire Department. As a result of a complaint or request, on-site inspections are made of various projects, particularly in the area of self-service gasoline stations prior to their opening, to assure compliance with the fire prevention regulations of the state and fire prevention orders of this department. Research work on existing and proposed code changes or additions are also part of the Plans Examiner's function.

Schools

Every school in the city is inspected with frequency and regularity by a company officer within whose sub-district the school building is located. A total of 6,700 fire exit drills were held. The Fire Prevention Division maintained a program called the "Boston Junior Fireman," based on the Fire Marshal Plan which claimed national recognition since its inception in Boston in 1948. This plan is supported by the Sears Roebuck and Company and is aimed at the sixth-grade pupil of public, parochial, and private schools for fire prevention education. The approximate number of pupils lectured on fire prevention during the school year was 22,760.

Photographic Activity

This unit responds to all multiple alarms, accidents involving fire department vehicles or property, special calls for specific photographic records, fire prevention code violations, and fire hazard conditions for correction or prosecution, provide Id. card photographs, data assembly and lamination of Id. cards for issuance to all members appointed or promoted. A total of 9,566 prints were made in the course of the past twelve months.

In-Service Inspections

This department continues with its routine in-service inspections by company units of this department. Information and inspections recorded are appraised in this division and in those instances where further action is required, the inspection report is brought to the attention of Fire Prevention Inspectors for closer study of the problem. His findings are made known to the District Five Chief and the fire company involved with recommendations and corrective action necessary. These inspections are in excess of 7,000 in the course of a year.

Inspection Forces

The Inspection Force of this division has established a program of inspection designed so that the occupants of the premises to be inspected can make no advanced preparations to circumvent the honest viewing of any location. The total number of inspections made by the Inspection Force totaled 13,646. Places of assembly were also inspected by this force for a total of 2,775. Additional inspections were made by the officers in the subdistricts where the places of assembly are located. In locations requiring a specialized knowledge, the inspectors of this division, specially trained in that field, were assigned to make these inspections to ascertain that no fire hazard existed or continued due to a lack of knowledge. All matters concerning other city departments were reported by the inspectors of this division on the necessary forms to the departments charged with this responsibility. These totaled 1,135.

Arson Squad

The Arson Squad is charged with the responsibility of investigating the cause and circumstances of every fire and explosion occurring within the city limits. The Boston Fire Department and Boston Police Department combination Arson Squad went into effect in April, 1977, greatly increasing the efficiency of the Arson Squad by their number of arrests and convictions. Undetermined, suspicious, and incendiary fires totaled 821. Injuries reported and investigated totaled 130 with deaths attributed to fires totaling 19. Ninety-six arrests were made during the past twelve months and 254 Municipal and District Court appearances. One hundred and nine appearances were made before the Superior Court. As a result of these appearances and arrests, we were able to get fifty convictions.

Personnel

The night division of inspection concentrated its efforts in the area of high populations wherein our citizenry may be assembled for shopping, amusement, or entertainment.

Personnel has been assigned to new construction sites for the purpose of ensuring the available water supplies and the fire protection equipment, as well as seeing that good housekeeping is being maintained at these sites.

The vacant building program of inspections is still being maintained at a high level. Approximately 1,000 vacant buildings have been inspected at least once. This allows the Fire Prevention Division to keep a close surveillance on demolitions and removal of all debris from their locations, thereby allowing for both the prevention of blight in the neighborhood and increasing the fire safety of the neighborhood.

This division also keeps a close watch and supervision on all temporary closings of gasoline stations. This is in addition to the installations of Phase I and Phase II vapor recovery systems.

Inspections were also conducted during this year of all safety devices in relation to gasoline tank trucks and approximately 150 safety decals were affixed thereto.

All hospitals, clinics, and schools containing

laboratories were inspected for illegal use and storage of propane.

Nursing Home Seminar

Seminars were conducted which were a huge success. At these meetings, approximately 80 percent of the nursing homes in the City of Boston were represented. Various demonstrations were held to acquaint nursing home personnel with proper procedures in the event of fire. Pamphlets were distributed in both Spanish and English in relation to life safety in the nursing home in addition to two films relating to same.

Massachusetts Fire Prevention Association Seminar

This seminar was held at Florian Hall with chief officers from various parts of the Commonwealth in attendance. Guest speaker at this seminar was Mr. Richard Struthers of Washington, D.C.

Target Hazards

In keeping with the program, the Fire Prevention Division is continuing on the inspections of large, industrial complexes and warehouse areas along with the hospital and school inspections. These inspections are made by officers of the Fire Inspection Division who are accompanied by the District Chief of the fire district concerned and the company officer in whose subdistrict the occupancy may be located. Some of the inspections made were follow-ups of last year and some are new ones that have been added.

In the school inspections, a Lieutenant has been assigned with an inspector from the Department of Public Safety to perform in-depth inspections of all public, parochial, and private schools located within the confines of the City of Boston. These inspections are in addition to the regularly scheduled quarterly inspections required by law and performed by this division in conjunction with fire-fighting officers from the fire districts concerned. The Lieutenant worked with city officials of the School Department and the District Chiefs in the school desegregation program.

Large Loss Fires

During the past twelve months, large-loss fires encompassed all sections of the city that taxed the capabilities of the Boston Fire Department. In view of these large-loss fires, both in material things and human life, the Fire Prevention Division has "beefed-up" their inspection program partly aimed at the minority groups located within our city and those who do not speak our tongue. These educational programs and community relations programs have been aimed at the Spanish-, Italian-, and Chinese-speaking people and the black communities. This is being brought about by presentations and civic meetings of neighborhood committees and through educational programs in the schools.

Fire Prevention Activity

The Fire Prevention Division again this year continued its efforts with an around-the-clock program of fire prevention, 365 days. Financial assistance is obtained through funds donated by the Fire Safety Council, which is a citizen-sustained group that aids in the purchase of educational material in our fire prevention program. This includes various news media, prizes, pamphlets, and posters. Their assistance in our effort is extremely valuable.

General

The Fire Prevention Division maintains a constant in-service training of all members assigned to this division. A weekly seminar is held for all members assigned to the Fire Prevention Division to keep them abreast of current changes in inspection techniques, changes in rules and regulations, and any changes in statute law. This includes the explanation, use, and implementation of the new State Building Code with regards to changes as it affects the Boston Fire Department. These seminars also are extended to members of the fire-fighting force by holding instructional periods on the Fire Prevention Code with its enforcement and instructional courses for officers of the department relative to their responsibilities in inspections and corrections and the issuance of all necessary notices ordering the correction or the appearance of delinquents into the various district courts.

A cooperating, in-service, training program is also held with various other departments of city government involved in code enforcement, i.e., Building Department, Housing Inspection Service, and Health and Sanitation. Members selected to be Fire Inspectors assigned to the Fire Prevention Division start with a basic knowledge of fire fighting because of their service in the various fire companies of the department throughout the city. These men usually have a background knowledge of building construction, electricity, plumbing, and a knowledge of the various occupancies and their related fire hazards. As this division deals constantly with the public, these men must be able to portray a good example of the fire service to the people of Boston. They must acquire a knack of explaining to the public how they should safely live, work, and play to prevent fire from taking their lives, cause painful injuries, and destroy property. In order to get this message across to the general public, a man must be adept in public relations so that the message we have to give is received in a proper manner.

DEPARTMENT CHEMIST

The Department Chemist is responsible for a broad range of technical matters relating to the operations of the Fire Prevention Division and the Training and Research Division. He also reports directly to the Fire Commissioner for special technical assignments.

The responsibilities in the Fire Prevention Division include, among other things, the performance of laboratory evaluations of flammability and related properties of materials intended for use as draperies, upholstery, and other miscellaneous decorative items. In addition, fire and related test data supplied by manufacturers is evaluated for use in rugs and other floor coverings, wall coverings, ceiling constructions, and furnishings. Evaluations are made on a variety of materials used by schools, hospitals, places of assembly, and various occupancies in high-rise buildings. In 1976, special attention was focused on reducing the fire hazards of upholstered furniture and the developing of criteria for the control of the flammability of combustible partitions used in modern, office-space planning. New regulations for floor coverings were developed for incorporation into the Fire Prevention Code and were submitted to appropriate agencies for use in statewide regulation. Responsibilities also include investigation of fires involving materials regulated by the Fire Prevention Code or the State Building Code.

The Department Chemist played a major role in an extensive investigation of a potentially dangerous construction feature in a high-rise building. A report of this investigation, co-authored by the Fire Commissioner, the Departmental Chemist, and a National Fire Protection Association Staff Investigator, was published by the nationally recognized *Fire Journal* in July of 1977.

The responsibilities for the Training and Research Division include the development and implementation of specifications for protective clothing and equipment for fire fighters. Specifications currently developed are for fire coats, helmets, fire boots, and gloves. Specifications were completed for a safety, work shoe suitable for fire fighters. Efforts during the past year included the

development of a new, improved, fire coat. Performance requirements for increased puncture resistance in fire boots and safety shoes were identified for inclusion in future procurements. Several new helmet designs and constructions were considered. The traditional leather helmet was selected for annual procurement. Several incidents in which fire fighters were injured were investigated to ascertain the field performance of protective clothing and equipment. Such incidents included exposures to toxic and irritating smoke, head injuries, and foot punctures. A special department investigation was conducted for an incident involving exposure to chlorine fumes.

PLANNING AND LOGISTICS DIVISION

The Planning and Logistics Division, during the past year, has been involved in many endeavors that affect fire department operations. Included in its operations are the following:

Response Cards

This at times involves response changes due to a bridge being repaired or the more involved, continuing program of developing our nine-alarm, response card. This division represents the Boston Fire Department at meetings with the Metro Fire Group of the Metropolitan Area Planning Council, who are developing a mutual aid plan that goes beyond our established mutual aid plan with the surrounding communities.

Pre-Planning Program

This is continuing and being further expanded so as to cover all areas of the city. This year we embarked on a program of acquainting companies with marine, fire-fighting involvement. This was accomplished by taking the first- and second-alarm companies, assigned to respond to the South Boston Naval Annex, to the Braswell Shipyard where they received instructions on ship fires and an acquaintance tour of a large ship to show ship construction and fire protection. Also, arrangements have been made with the Coast Guard whereby when certain ships are scheduled to arrive they will have Coast Guard personnel acquaint Fire Department members with the essentials for effective fire-fighting operations. Also, many varied problems are referred to this division, including problems involving other city, state, and federal agencies.

Activities

Tested fire fighters' elevator key switches in some 400 to 600 elevators.

Conducted MBTA standpipe acceptance tests.

Compiled high-rise building fire-fighting data on various buildings, following in-depth studies at the sites. Data was distributed to chief officers.

Drilled fire companies on-site at high-pressure hydrants, MBTA standpipe and emergency escape exits, and on familiarization with high-rise building procedures.

Attended public hearings of the State Board of Elevator Regulations where recommendations were made to improve the fire fighters' elevator key switch service.

Drained barrels of defective hydrants prior to subfreezing temperatures.

Conducted drills, using color slides for visual aid, relative to fire fighters' elevator key switch and emergency escape procedures from stalled elevators.

Customized procedures were set up with superintendents of high-rise buildings under construction for the use of temporary personnel hoists. Adjacent first-alarm companies were instructed in their use.

Notified appropriate elevator inspectors following fires involving elevators and elevator machine rooms. Tested fire fighters' elevator key switch upon notification of any malfunction.

Visited groups in each fire station in program of retooling all defective brass Fire Department keys.

Inspected approximately 125, high-rise buildings under construction.

Drilled companies in use of new anti-tampering caps for hydrants.

Held on-site drills with companies at Braswell Shipyard installation of salt water mains at Boston Marine Industrial Park.

Drained over 250 hydrants with water in the barrels.

FIRE ALARM DIVISION

The Boston Fire Department responded to a total of 54,852 incidents for the period July 1, 1976, through June 30, 1977, involving more than 236,900 separate movements of apparatus. The Fire Alarm Office received and transmitted more than 661,000 separate radio messages in the dispatching of apparatus and for incidental department operations. There were 16,381 false incidents, for a total of 29.93 percent incidents from all sources.

During this period there were 118 second alarms, 40 third alarms, 14 fourth alarms, and 5 fifth alarms. There were 182 working fires requiring additional apparatus being dispatched to the fire but not considered multiple alarms.

On June 30, 1976, there were a total of 2,429 fire alarm boxes in service in the City of Boston. There were 20 new fire alarm boxes installed for a net increase of 20 boxes. As of June 30, 1977, there were 2,449 fire alarm boxes in the City of Boston.

The Fire Alarm Construction Force installed a total of 24,862 feet of underground cable for a total of 497,240 feet of conductors. A total of 875 feet of overhead wire and cable was installed for a total of 1,650 feet of conductors. A total of 800 feet of overhead wire and cable were removed. Wire and cable removed was defective or damaged and in most instances was replaced.

The Fire Department Radio in the MBTA subways was extended to include the Green Line.

Seven, voice, fire alarm boxes were installed as a pilot program in the area of Blue Hill Avenue and Quincy Street. These boxes connect directly into the existing fire alarm cable plant. A special console at the Fire Alarm Office allows the Fire Alarm Office to talk directly to the citizen in the street. The console also identifies the location of the box and provides a permanent printed record.

The success of the program in the reduction of false alarms can be determined from the two, eight-month, sample periods, a reduction from 235 false alarms to 4 false alarms. The major advantage to the box is that it allows a citizen in need of help to be able to summon that help. It also allows the Fire Alarm Office to tailor the

response of apparatus according to the information received. A number of multiple alarms, including the Drake's Bakery fire, were reported by the voice boxes.

MAINTENANCE DIVISION

The Maintenance Division is responsible for all testing, repair, maintenance, and preventive maintenance of all fire apparatus and automotive equipment, and for the repair and maintenance of all buildings and grounds. The foregoing includes 237 pieces of rolling stock, consisting of 129 pieces of fire apparatus, 39 trucks of various description, 69 automobiles, 2 fireboats, and 42 buildings. In addition to meeting this heavy schedule, the division is also responsible for the compilation of specifications, procurement of new fire apparatus and all other vehicles, the upkeep of fire clothing, supplies and materials necessary for efficient operations, and care of over 350,000 feet of fire hose.

The Maintenance Division consists of the main apparatus repair shop, small vehicle shop, machine shop, welding and metal shop, carpenter shop, hose and canvas shop, paint shop, plumbing shop, battery and ignition rooms, and the main stockroom.

Personnel is comprised of fifty-nine civilian employees, proficient in various skills and crafts, twenty fire fighters, ten of which are assigned to the Emergency Motor Squad, which responded to over 8,000 calls of varying emergencies throughout the city.

Three new fire stations, located in East Boston, South Boston, and Brighton, have been completed and opened.

Plans and specifications have been completed to purchase four hose wagons to replace four of the thirty-year-old Mack wagons now in service. Three new custom pumps are also to be ordered.

Ten, 1976, one-hundred-foot, Seagrave Aerial Ladder Trucks (four-door, cab type) were received and put into service.

A new 1976 Ford Rescue Van was received and put into service.

Seven aerial ladder trucks that came out of service when they were replaced by 1976 Seagrave ladders have been completely refurbished and placed in service to replace older ladder trucks.

PUBLIC INFORMATION OFFICE

During the past year the Public Information Office and the Office of Community Relations have been involved in the directing and the overseeing of the following:

Arrangement for more than 5,000 visitors to the various fire stations and facilities of the Boston Fire Department.

Acquisition and distribution of printed fire prevention and fire safety material to the above-mentioned visitors and other interested parties.

In-depth involvement with the minority recruitment program.

Responded to all multiple alarm fires and unusual incidents, including fatal fires.

Provided numerous research materials, and information for television documentaries, radio programs, and newspaper and magazine articles.

Researched and answered fifty-seven, various type surveys.

Participated in several Career Exhibition Programs.

Public Information Officer represented Boston Fire Department on several occasions on television and radio programs as well as public speaking engagements before interested groups.

Arranged and covered department promotional ceremonies and award presentations.

CITY OF BOSTON  PRINTING SECTION